

Work Order ID 94061

94061

Page 1

November-30-12 8:30:15 AM

Item ID: 647.7712

Accept

N900040100

Setup

Start

NS1

Revision ID:

Stop

NS2

Item Name: Strut Tube

Start Date: 12/10/12

Start Qty: 3.00

3

Cust Item ID:

Required Date: 12/10/12

Req'd Qty: 3.00

3

Customer:

Reference:

Approvals: Process Plan: ML5 Date: 12-12-03 Tooling: Date: Run Start *NR1*
QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
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647.7700	N/C								
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100

100

Hardinge

Hardinge CNC LATHE SMALL

Hardinge CNC Lathe Small

Memo

Machine as per folio FB148

FOLIO REV: N/A
DWG REV: N/C

Deburr

110

110

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

0.00

PO 13/02/28

10 0

10 13/02/28

10 0

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____		DISPOSITION			AGAINST DEPARTMENT/PROCESS							
Part No. _____		Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____		Work Order Update <input type="checkbox"/>			Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
Root Cause			Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup												
Other												
Process												
Supplier												
Training												
Unapproved												
FAULT CATEGORY												
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspector Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions					

Work Order ID 94061

November-30-12 8:30:15 AM

94061

Page 2

Item ID: 647.7712**Accept*****N900040100*****Setup****Start*****NS1*****Revision ID:****Item Name:** Strut Tube**Stop*****NS2*****Start Date:** 12/10/12 **Start Qty:** 3.00***3*****Cust Item ID:****Required Date:** 12/10/12 **Req'd Qty:** 3.00***3*****Customer:****Reference:****Approvals:****Process Plan:****Date:****Tooling:****Date:****Run****Start*****NR1*****QC:****Date:****SPC (Y/N):****Date:****Stop*****NR2*****Sequence ID/
Work Center ID****Operation
Description****Set Up/
Run Hours****Tool ID****Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp**

120

QC8- Inspect parts - second check

0.00

120

QC

Quality Control

13 . 3 . 1

10

+

DAS
04
9-63

130

Identify as per dwg & Stock Location: ST B91D 0.00***130***

Packaging

Packaging

Memo

0.00

10x _____ 80
13-3-4

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Quality Control

Memo

0.00

13/3/5 MF
13-3-4MF
13-3-4

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
NCR No. _____		Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
		Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
		Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									
FAULT CATEGORY									
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions					
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other					

Picklist Print

November-30-12 8:30:14 AM

Page 1

Work Order ID: 94061**Parent Item:** 647.7712**Parent Item Name:** Strut Tube**Start Date:** 12/10/12**Required Date:** 12/10/12**Start Qty:** 3.00**Required Qty:** 3.00**Comments:** IPP REV:A NEW ISSUE 12-11-06 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M4130NR0.375 4130 steel RD bar .375"		Purchased	No			f		27.7670		0.1578947		PP 13/02/28	

Location	Loc Qty	Loc Code
MAT032	27.767	
108059	9.75	
123724	18.017	.76

NCR: Yes / No

DQA: Date:

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS																																																
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>																																															
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>																																															
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>																																															
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																																																
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector																																												
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Process																																																						
Supplier																																																						
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Unapproved																																																						
FAULT CATEGORY																																																						
Landing Gear			General																																																			
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<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions																																																					

DART AEROSPACE LTD	Work Order:	94061
Description: STRUT TUBS	Part Number:	647.7712
Inspection Dwg: 647.7700 Rev: N/C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Measured by:	PD	Audited by:	04 3-89	Preliminary Approval:	
Date:	13/02/28	Date:	3.3.1	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

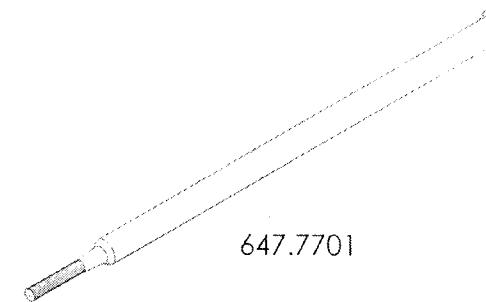
10.04.15

1 2 3 4 5 6 7 8

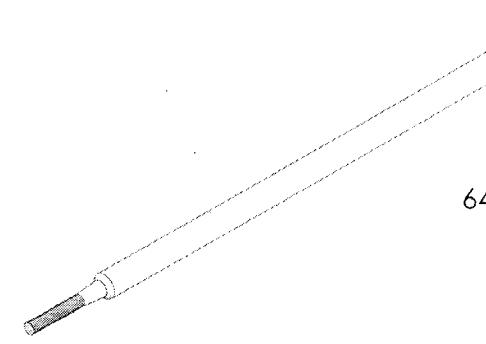
FOR APPROVAL CONSTRUCTION. THIS DRAWING IS THE SOLE APPROVAL DRAWING.
APICAL INDUSTRIES APPROVED THE DRAWING AND ORIGINALLY OWNED THE DRAWING.
THE ORIGINAL DRAWING OF APICAL INDUSTRIES IS RETAINED.

NOTES:

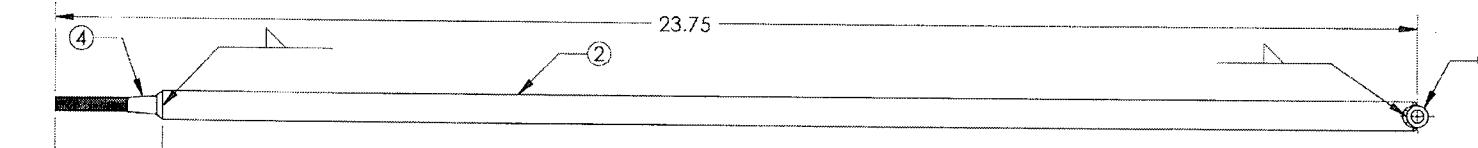
- 1. MATERIAL: 4130 STEEL PER AMS-T-6736, .50" OD, .083" WALL THK.
- 2. MATERIAL: 4130 STEEL PER AMS-T-6736, .375" OD, .075" WALL THK.
- 3. MATERIAL: 4130 STEEL PER AMS-T-6736, .324" OD.
- 4. FINISH: PRIME IAW MIL-P-2337J TYPE I CLASS N; 1-2 MIL MAX
- 5. DEBURR AND BREAK ALL SHARP EDGES
- 6. IDENTIFY IAW MPP-120.
- 7. WELD IAW MIL-STD-2219. TIG WELD WITH FILLER ROD
- 8. FINISH: CAD PLATE IAW MIL-C-5541 CLASS 1A
- 9. MASK THREAD PRIOR TO FINISH



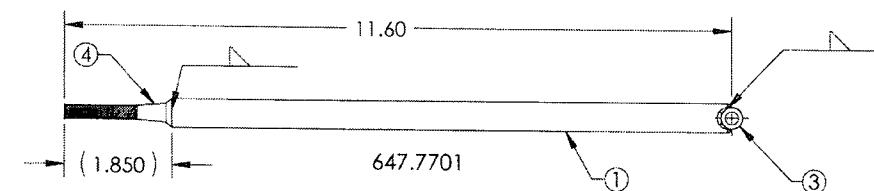
647.7701



647.7702



647.7702



647.7701

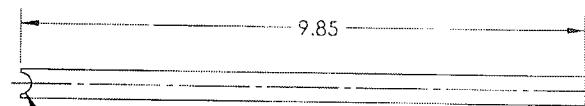
REF.	DESCRIPTION	DATE	REVISION
N/C	ORIGINAL DRAWING	12/2/09	N/C

SHOP
REF.
ENGINEER
UNCONTR.
SUBJECT
WITH
WGS
NO. 94061 MCL
12-12-03

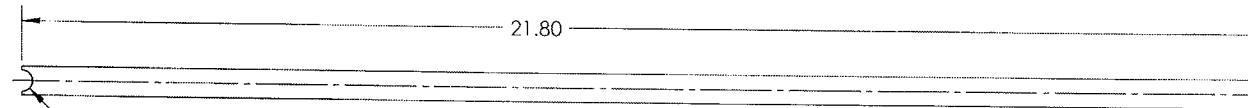
1	1	4	647.7713	STRUT THREAD	△	△
1	1	3	647.7712	STRUT TUBE	△	
1	2	647.7711		STRUT TUBE	△	
1	1	647.7710		STRUT TUBE	△	
		647.7702		STRUT ASSY	△△	
		647.7701		STRUT ASSY	△△△	
7702	7701	FIND #	PART #	DESCRIPTION	MATL	SPEC.
QTY						
PARTS LIST						
NEXT ASSY (S)						
647.7300						
DRAWING APPROVAL						
12/2/09						
CONTRACT No.						
APICAL INDUSTRIES						
2608 TEMPLE HEIGHTS DR.						
OCEANSIDE, CA. 92056-3512 (760)724-5300						
STRUT ASSY						
UNLESS OTHERWISE STATED DIMENSIONS ARE IN INCHES 2 PLACE DECIMALS ±0.01 3 PLACE DECIMALS ±0.005 ANGLES ± 5°						
SEE	1-CAGE CODE	DWG. NO.	647.7700			
B	07M76		REV.	N/C		
SCALE: NONE						
SHEET 1 OF 2						

94061

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BY APICAL INDUSTRIES AND IS NOT TO BE COPIED.



R.188 647.7710

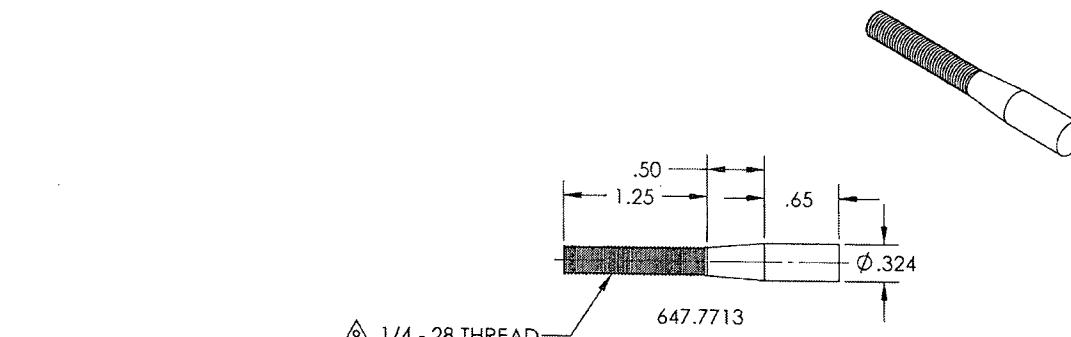
 $\phi .500$
 $\phi .334$


R.188

647.7711

 $\phi .500$
 $\phi .334$


647.7712


 $\triangle 1/4 - 28$ THREAD

647.7713

 $\phi .324$

CHECKED: DATE J. JACSON 11/15/09	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300
SUPERVISOR APPROVAL P. PAVO	
COMPACTING NO.	STRUT ASSY
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES 1. INCH = 25.4MM 2. TOLERANCES ± .01 3. RADII 1/8 INCHES 4. ANGLES ± 5°	SET CAGE CODE: B 07M26 DRY. NO: 647.7700 REV: N/C
SCALE: NONE	SHEET 2 OF 2